ONE DOLLAR

Marmot Mountain Works

Manufacturers of the finest quality wilderness equipment

1977 catalog

Dear Friends,

Marmot Mountain Works, Ltd. is a young and small company dedicated to providing only the highest quality products. We are striving to offer a new level of excellence in both the quality of design and product execution. We view our gear as sophisticated tools which will expand the range of your experiences in the wilderness. In addition to unparalleled performance in extreme situations, our gear provides greater comfort and ease of function under "normal" conditions.

There are now many people using our gear and discovering the value of superior performance and greater longevity. We hear from many of you -- of your experiences in the wilderness, your praises and criticisms. We value this communication, for it is our most important input into the constant program of re-evaluation and development of our gear. Please keep it up.

As well as offering the finest products, we try our best to always conduct business at the highest ethical level. In order to continue feeding a rapid growth, "bigger is better" machine, the present direction of economic development seems to depend upon the selfish and shortsighted motivations of people. We hope to show that the rewards of a saner, more human approach in business are greater.

You will find that our claims in advertising and promotional material are often very bold. Please do not discount them just because of the numerous half-truths and unfulfilled promises that are common in the general conduct of business. We will deliver what we promise. We ourselves know from years of mountaineering experiences that only good sense and superior gear will keep you warm and dry.

Good Luck,

Eric Reynolds Dave Huntley Tom Boyce

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How to Order

I. Marmot Methods

Quality you can appreciate

The old saying, "You only get what you pay for," is generally more true than not. In order for us to produce superior gear we have spent considerably more time and money than others on labor and various raw materials.

Down with a 650 cubic inch per ounce fill power displaces 20% more volume than down of the industry standard 550 fill. It also costs considerably more.

Lightweight (1.5 oz.) fabrics are woven with smaller denier yarn (smaller diameter) which is more difficult to manufacture and weave, hence more expensive. Fabrics woven to be down proof by construction (tightness of weave) are also more expensive.

Hot cutting a single layer of nylon fabric, to insure a long life for the product costs much more than mass cutting many layers simultaneously. One person sewing the entire product with pride insures consistency and a better made piece of gear, but it also costs more.

We feel no doubts whatsoever in claiming that our down gear is the best in the world, and we readily admit that it costs more. We feel that the value of our gear's superior performance and the longer life of good service outweigh the extra cost. What it boils down to is what you believe to be a GOOD VALUE.

Remember that it only hurts once to buy quality goods! Once you experience their performance, you'll be hooked!

It's a personal thing with us

Marmot was started by three young mountaineers who were (and still are!) very dissatisfied with the quality and performance of the wilderness equipment generally available. We have been on many expeditions to Alaska and South America. From these prolonged experiences in the mountains, we have developed a demanding attitude towards gear. We continue to be active in our outdoor pursuits and believe that these experiences are extremely valuable in maintaining the highest standards.

Welded edges that never ravel

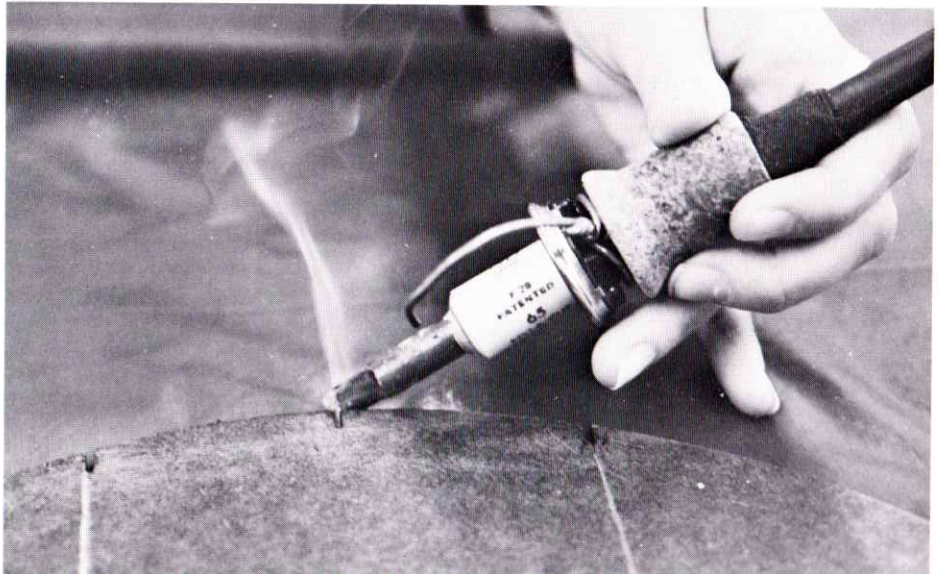
In keeping with our philosophy of insuring the highest quality by making no compromises, all nylon materials are hot cut. Marmot Mountain Works is the only wholesale manufacturer of down garments, bags and comforters that hot cuts each piece of nylon individually.

Hot cutting means that the fabric is cut with a hot bladed knife which sears the nylon and forms a welded edge that will not fray or ravel. Most companies cut their materials in layers of 50-200 thick with a saw blade. Then they spray the edges with an adhesive which is supposed to prevent fraying. We've found that this simply doesn't last. Repeatedly we open other firms' products for repairs and find very frayed seams.

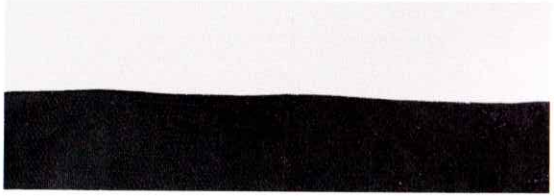
Raveling is particularly undesirable in down gear for two reasons. First, the seams can fray back to the stitching and fall apart. In addition, when the gear is washed, the frayed ends of the material can actually cause the down to become matted and clogged into little balls, rather than contributing to the loft.

We think hot cutting is the only right way to cut edges, and our confidence in its value is reflected in our guarantee (see page 33).

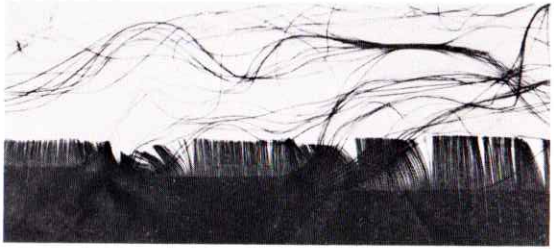
Hot cutting a single layer of nylon



A welded edge that has been hot cut



A frayed edge that was cut with a saw blade



Down . . . the best insulation material available

DOWN: THE BEST INSULATOR

Even with all the rhetoric going around these days about synthetics, we're firm believers in the *fact* that down is still the most efficient insulator known to man. We admit to certain drawbacks, such as cost and "useless when wet," but the former is a necessity when attempting to produce the finest gear, and the latter has been solved (see Gore-Tex, p. 24).

Since down gear is our present specialty, we'd like to take up a little space here to explain the *real* facts as simply and clearly as possible (how many times have you heard this before?).

The two most important factors in determining down quality are weight efficiency and longevity. Terms such as "prime," "100% northern," white or grey, duck or goose, do not tell us anything about the quality of down. The origin of the down, whether it be from Thailand, Poland, China, Canada, or wherever, does not inherently make it good down.

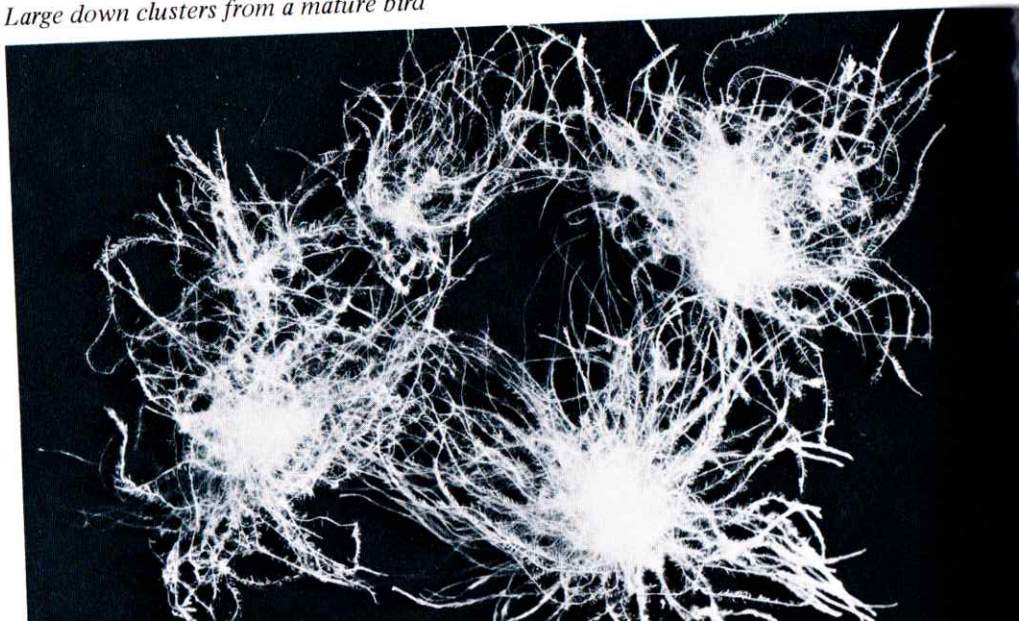
WEIGHT EFFICIENCY

Large down clusters are more efficient than small clusters, pin feathers, or half-downs. The larger clusters occupy more space for their weight than do smaller pods or feathers. The higher the feather content, the less weight-efficient is the down.

Cluster size is dependent on both the size and maturity of the bird from which the down came. Consequently, goose down clusters are generally larger than duck down clusters because geese are larger birds. Also, down from a mature bird generally has a larger cluster size than down from a young bird. So, you can see that there can be a large variation in sizes, and that some duck downs are better than some goose downs.

The down which we put into your garments and sleeping bags is the finest available. The down clusters are large and

Large down clusters from a mature bird



there is a very low feather content. Our industry has a standard test to determine weight efficiency (referred to as "filling power"). Filling power is a measure of the volume that one ounce of down will fill, in cubic inches. For high quality items like ours, the general industry standard is 550 cu. in. per oz. This is fairly easy to obtain while still having a moderately high feather content. *Our minimum standard is 650 cu. in. per oz. -- the highest in the industry. Our down frequently tests as high as 750 cu. in. per oz.*

We test a sample from each individual bag of incoming down (bags weigh around 20 lbs. each) in our filling power test apparatus to see if it meets our rigorous standards. We occasionally have to send back shipments which don't quite make it. We have done this many times and will continue to do so in order to maintain our extremely high standards.

Some companies use blends of down with a high percentage of feather content. (Down may have up to a 25% feather content and still be called 100% down.) A few companies even claim that they specially blend feathers into the down to increase longevity in loft and rapid loft springback. This is *not* the result of a high feather content. These are merely excuses for using cheaper raw goods.

LONGEVITY AND CARE

There are two main factors which contribute to the useful life of a down cluster. These are, firstly, physical characteristics, and secondly, care and treatment.

Experience tells us that cluster size is the most important physical characteristic which affects longevity. Larger down clusters simply last longer. In addition, the natural oiliness of the down contributes tremendously to longevity by protecting its resiliency. The loss of these oils or dirtiness will cause the down to lose some of its lofting properties, and your bag or garment will not keep you as warm.

Sleep in the rain without a tent? Gore-Tex® makes down gear waterproof!

[See page 24]

This is why our down is processed with very mild soaps, and why our care instructions emphasize *not* to use detergents or dry cleaning solvents to clean your down product. Detergents and most dry cleaning agents were designed to remove oily substances, so *don't* use them. Down gear should be washed only in mild soaps such as Ivory Soap Flakes, Fluffy Down Soap, or Woolite. Washing *is* recommended if it is done properly, as it will remove dirt and restore the loft.

We believe that down is the single most important factor in the creation of quality goods. We have set a very high standard for down and that's the main reason our gear is lighter in weight and at the same time provides more warmth. *This is what down gear is all about and there is no synthetic nor any other company which is able to match our warmth to weight ratio.*

Finest fabrics and materials

The quality of any piece of gear is naturally only as good as its components. This is, of course, very true of the raw materials used, as well as the craftsmanship and design. The intricacies of the various fabrics used in wilderness gear often go unnoticed and unappreciated. This is due primarily to the usual desires of other manufacturers to create myth out of mystery.

Looking casually at yardage of lightweight nylon, it is difficult to know much about its performance capabilities. However, various mills and finishers produce a vast array of qualities in fabrics. Factors such as weight, durability, downproofness, air permeability, water repellency, water proofness, hand (the feel of the fabric) and cost must be considered in choosing the best fabric for a given need.

INNER FABRIC

Marmot down products use very lightweight materials. On the inside of all down garments, as well as for the entire shell of sleeping bags, we use 1.5 oz. per square yard nylon. It is a very light, soft, and supple fabric that is much less restrictive to the down loft than the heavier fabrics used by other manufacturers. This fabric, which is 20% lighter, is only slightly less strong and abrasion-resistant than the usual 1.9 oz. or 2 oz. fabrics. No customer has ever reported to us the failure of our lightweight fabrics.

A strong myth in our industry claims that light fabrics are too weak and are not downproof -- this is just a rationalization for using cheaper, heavier fabrics and a cheaper high feather content down which would otherwise bleed. Please don't be fooled!

OUTER FABRIC

The fabric chosen for the outer shells of our down garments is a 2.0 oz. nylon. It provides a very durable downproof shell that is water repellant.

BAFFLE MATERIAL

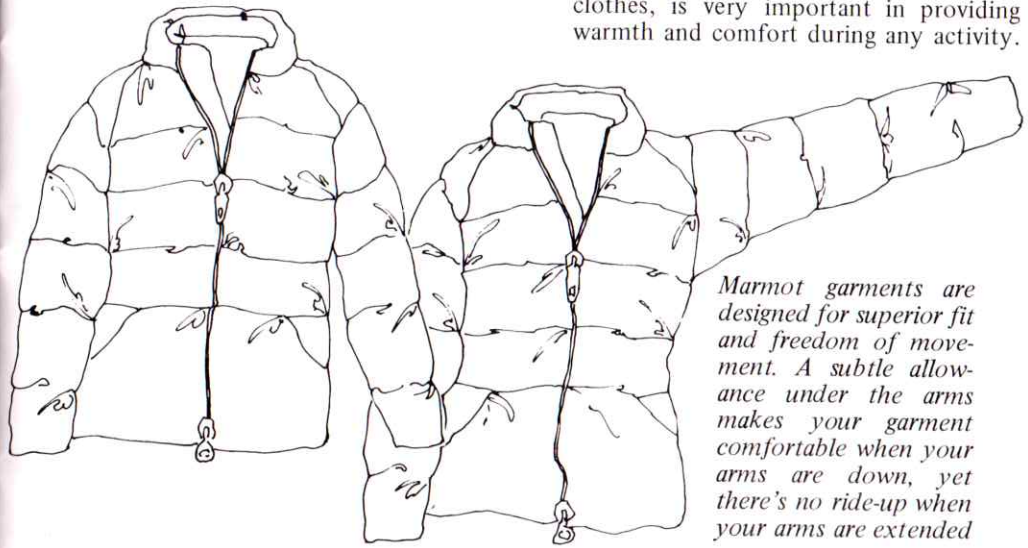
In our sleeping bags and baffled parkas we use a 1.6 oz. nylon tricot material for baffling. It is light, stretchy, and porous. The tricot baffling will stretch more than twice its width before tearing. This is important in assuring the long-term durability of a bag through repeated stuffing and unstuffing. The stretchiness absorbs stresses and distributes them over a larger area. The porous surface allows down clusters to cling to it and aids in producing more loft.

II. Marmot Garments

FREEDOM OF MOVEMENT

The primary thrust of this year's design effort has been to provide garments with truly superior fit and freedom of movement. We think Dave, our designer, has succeeded brilliantly. Virtually all outdoor sportswear is touted as having great freedom of movement. This is simply not true. You can very quickly see this shortcoming once you wear something that really *does* move well.

A simple test is to raise one arm above your head and note the amount of ride-up at the hem, and the movement of the cuff up your arm. Usually there is dramatic stress and a tugging restraint in the shoulder and chest areas, causing four to six inches of ride-up at the hem. That's hardly comfortable or desirable. Marmot garments will not move more than an inch or two, and with no resistance. We feel this fit, particularly over bulky clothes, is very important in providing warmth and comfort during any activity.



Marmot garments are designed for superior fit and freedom of movement. A subtle allowance under the arms makes your garment comfortable when your arms are down, yet there's no ride-up when your arms are extended

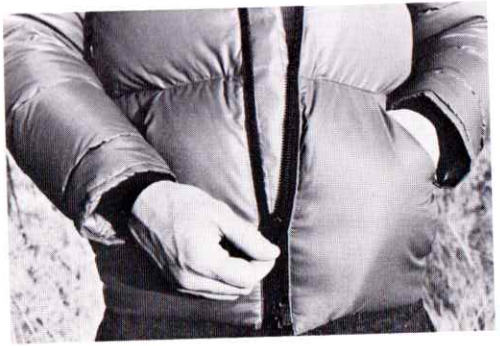
STORM SKIRT

At the waist of all our garments (except vest) is an important feature, which we borrowed from downhill ski gear. It is a nylon skirt attached at waist level, about 6" in width, with an elastic hem. It snaps in place to provide a hidden closure below waist level to keep out wind and powder snow. With our fine freedom of movement, the storm skirt does not ride up, so the small of your back remains protected in active skiing, climbing, or in a blizzard.

B

A

C



D

A. CUFFS

Our wrist closure is a 100% nylon stretch knit cuff. It performs well in extreme cold and absorbs little moisture. A knit cuff requires no adjustment and always gives a storm-proof closure, whether you are bare-handed or wearing mitts. We find its performance superior and longer lasting than snaps (which are very difficult to operate in extreme cold) or elastic (which performs very poorly in extreme cold, losing its grip and becoming stiff to the point of causing chafing at your wrist).

B. INSIDE STASH POCKET

All our garments have a large pocket inside to provide a safe place for items of value or for things you want to keep warm. It is velcro sealed and, like our exterior pockets, does not create any cold spots. It is big enough for glasses, mitts, light meter, head lamp battery pack, or other bits of paraphernalia.

C. ZIPPER AND DRAFT TUBE

We have chosen a YKK coil zipper, backed by a down-filled draft tube, as the most effective closure for our garments. A coil zipper is desirable because of its smooth sliding operation, self-repairing ability, tremendous strength, and ease of operation in snow and ice conditions.

A full length draft tube behind the zipper insulates against cold drafts coming through the zipper. Sewn to the inside of the draft tube is a nylon sailcloth stiffener to prevent zipper snagging.

This is a costly and tedious closure to sew, but it is the most effective -- no snaps to break or fill up with snow and ice, no gaps, and no cold spots.

C. DOWN-FILLED POCKETS

All outside pockets are generously insulated with down to keep your hands toasty warm. The placement of the pockets has been carefully worked out to avoid sewn-through cold spots. Commonly, pockets are slapped on at the end of the assembly line in such a manner as to cause several additional lines of stitching to be sewn through the insulation. This is obviously undesirable, but it is quick. Our pockets always line up on existing seams, at the zipper, hem, side seam and quilt line to assure maximum loft throughout the garment.

D. CONSTRUCTION

All the hot cut pieces of the garment are sewn to completion by one person. We feel that this method definitely results in a higher and more consistent level of quality than is possible in a large factory using mass assembly techniques. Our staff, over a period of time, earn their "name labels" as their quality consistency improves. Pride in workmanship is encouraged and is evident in the neatness of their work.

Marmot Sweater

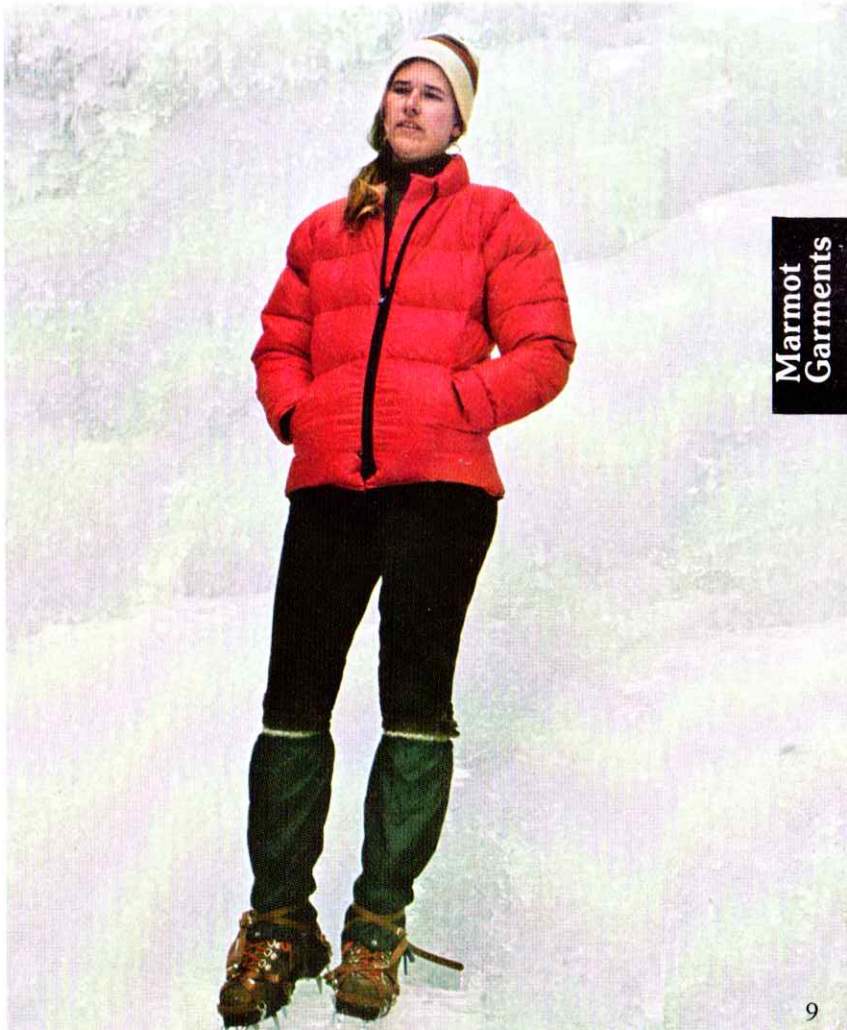
Warmth and Comfort
in the Widest Range of Experiences

This was the first garment produced by Marmot Mountain Works. It was designed for alpine climbing in cold conditions, but its light weight (only 20 oz.) and compressibility make it the perfect garment for backpacking, situations when you're stationary in the cold (like stopping for lunch on a cross-country trek) or for people out in the cold about town.

With 8½ oz. of goose down fill, the down sweater has great loft. It was designed for maximum freedom of movement. For assured warmth, there's a draft tube behind the zipper with a sailcloth stiffener, stretch nylon cuffs at the wrist, a waist level storm skirt, down-filled hand warmer pockets, and an inside Velcro-sealed stash pocket.

Sizes:	XS S M L XL
Standard Colors:	Maroon with Royal Blue lining, Royal Blue with Navy lining, Forest Green with Royal Blue lining
Gore-Tex Colors:	Royal Blue with Navy lining, Forest Green with Royal Blue lining, Navy with Burgundy lining
Option:	Chest Stripe

Regular, **$82.00**; Gore-Tex, **$110.00**; Stripe, **$15.00**



Marmot Vest

Down vests have been popular with outdoor enthusiasts for years. Whether you'll be downhill or cross-country skiing, backpacking, chopping wood, or simply walking, a down vest provides lightweight warmth and freedom of movement. A down vest is probably the garment best suited for layering. It may be worn over a wool shirt or sweater, or under a parka or wind shell to give you the versatility needed to always maintain a comfortable temperature.

Our down vest has a clean, simple style that combines function with fashion. It is filled with 6 oz. of duck down and is only 14 oz. in total weight.

The vest is closed with a YKK coil zipper. This is a feature rarely seen in a vest. The zipper eliminates any gaps which might let in cold drafts or snow. There's a down-filled draft tube running behind the full length of the zipper, which prevents wind from whistling through the zipper to chill your whole front. A nylon sailcloth stiffener inside the draft tube prevents the zipper from snagging the tube.

The Velcro-sealed collar fits snugly around your neck and there's an inside stash pocket sealed with Velcro. Both outside pockets are heavily filled with down to keep your hands toasty. The back of the vest is 2" lower than the front to keep the small of your back warm, and the bell-shaped curve at the side allows you to put your hands in your pockets easily.

Regular, **$49.75**; Gore-Tex, **$69.50**

Marmot Shirt

Lightweight Warmth of a New Dimension

The down shirt was developed recently in response to feedback from our customers. Many people found a down sweater too warm for such active pursuits as downhill and cross-country skiing. So we designed this shirt with those activities in mind.

With 5½ oz. of goose down and a total weight of only 16 oz., it is lightweight and readily compresses to a size that easily fits in a fanny pack with lunch. The freedom of movement and fit you'll get in this shirt can't be matched by any other down garment on the market, except for our down sweater or parka.

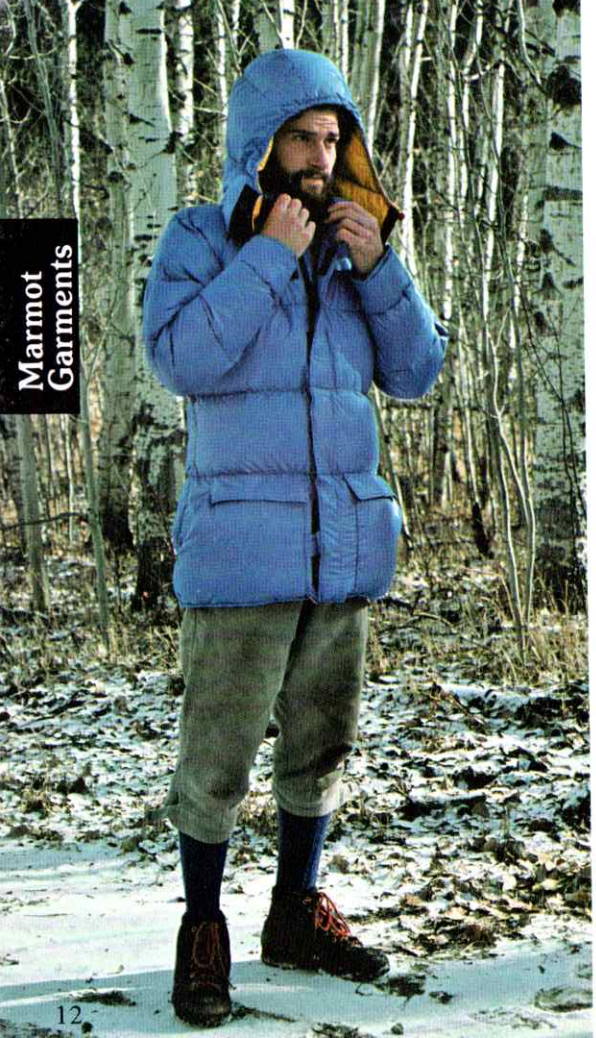
There's a draft tube running behind the full length of the zipper, a sailcloth stiffener so the zipper won't snag, an inside Velcro-sealed stash pocket, and puffy down-filled pockets on the outside. The nylon stretch knit cuffs at the wrist and the storm skirt at the waist keep out cold drafts and powder snow.

Sizes and Colors for Vest and Shirt

Sizes:	XS S M L XL
Standard Colors:	Maroon with Royal Blue lining, Royal Blue with Navy lining, Forest Green with Royal Blue lining
Gore-Tex Colors:	Royal Blue with Navy lining, Forest Green with Royal Blue lining, Navy with Burgundy lining
Option:	Chest Stripe

Regular, **$68.00**; Gore-Tex, **$95.00**; Stripe, **$15.00**

Marmot
Garments



The Picket Pin Parka

This garment bears the nickname for the Belding Ground Squirrel, one of our favorite mountain friends. This parka is *very* generously filled with 11 oz. of goose down. It is long enough to sit on, and it is greater in circumference than our other garments, so more clothes can be worn underneath. We feel that it is generally too warm for climbing, skiing and active work, but ideal for winter mountaineering or for people who easily get cold.

The amount of loft is remarkable for its 25 oz. weight and its length. With all that loft you still get great freedom of movement so you can raise your arm above your head with no ride-up at the hem or wrist. In addition to the standard features of all our garments, we've added some other details. There's a double cargo pocket on the outside so you can load items from the top with a flap to seal it off, but your hands can enter at the side too. A Velcro-sealed storm flap over the zipper prevents zipper icing in extreme conditions.

Sizes:	XS S M L XL
Standard Colors:	Maroon with Royal Blue lining, Royal Blue with Navy lining, Forest Green with Royal Blue lining
Gore-Tex Colors:	Royal Blue with Navy lining, Navy with Burgundy lining, Forest Green with Royal Blue lining
Options:	Chest Stripe Zipper-attached hood

Regular, **$107.50**; Hood, **$16.00**
Gore-Tex, **$135.00**; Hood, **$19.00**
Stripe, **$15.00**

The Golden Mantle

This garment represents the state of the art in down gear. We have spared nothing in our attention to design and detail. Twelve hours of construction time and 106 individually hot cut pieces go into the creation of each Golden Mantle. Named for another mountain friend, the Golden Mantle Ground Squirrel, this is by far the lightest expeditionary parka in its class. With one pound of down fill, its total weight is only 2.5 lbs. It is intended for use in extreme conditions on the most demanding routes. Evidence from expeditions to Alaska, the Himalayas, prolonged use in the Canadian Rockies and on the north face of the Eiger back up the validity of our claims.

Internally, the Golden Mantle is constructed like our sleeping bags, with 4" of differential cut for thick, even loft, and 3" spaced slant wall box baffles throughout, including the hood. This kind of construction is the most important feature in attaining the high efficiency of this parka, and it is unique -- no other manufacturer does this.

For extra warmth, we've added features like a down-filled collar at the wrist, with Velcro-sealing compression straps on the outside (this is an easily worked wrist closure that saves a tremendous amount of frustration when wearing expedition mitts), and a down-filled visor ruff around the hood to keep wind and snow from beating in your face. The parka is long enough to sit on in the snow, and a storm waist closure keeps out drafts and powder snow. A large down-filled draft tube behind the zipper, with a sailcloth stiffener inside and a very large Velcro-sealed storm flap covering the zipper, eliminate cold penetrating at this common weak spot. Other features include double hand-warmer/cargo pockets on the outside and *two* Velcro-sealed inside stash pockets.

Sizes: S M L XL
Standard Colors: Maroon with Royal Blue lining or Royal Blue with Navy lining
Gore-Tex Colors: Royal Blue with Navy lining
Forest Green with Royal Blue lining

Regular, **$205.00**; Gore-Tex, **$244.00**

How to choose the garment that fits your needs

As with our sleeping bag selection guide, we hesitate to provide a specific temperature rating for our garments. Individual differences in physiology and fitness, weather conditions, etc., all have a definite effect on the performance of your gear.

We cannot guarantee that you will be comfortable in a given garment at the indicated temperatures, but our figures are an honest, average reflection of many individual experiences with our gear.

USE	40°+	40° to 20°	20° to 0°	0° to -20°	0° to -40°
Inactive	Vest or Shirt	Vest or Shirt or Sweater	Shirt or Sweater or Picket Pin Parka	Picket Pin Parka or Golden Mantle	Golden Mantle
Moderately Active	Vest	Vest or Shirt	Vest or Shirt or Sweater	Sweater or Picket Pin Parka	Picket Pin Parka or Golden Mantle
Extremely Active		Vest	Shirt	Sweater	Sweater or Picket Pin Parka

Marmot T-Shirts

Our T-shirts are 100% cotton with a 4-color design. We've silk screened our logo on the shirts, with a sunrise behind the marmots.

They shrink because they're cotton, so get a size larger than you normally wear.

Sizes: XS S M L XL,

Colors: Tan, Blue, Yellow **$4.50**

III. Marmot Bags & Gear

Sleep in the warmth of down

Producing superior performing sleeping bags requires sophistication in design as well as the choice of the best raw materials. Few companies approach equipment design with the extensive mountaineering background of our staff.

The collective experiences at Marmot have created an attitude towards designing that is exceptionally rigorous. This is most powerfully evident in side-by-side field evaluations of wilderness gear. Repeatedly we hear reports of our gear keeping people comfortable (and able to enjoy the powers of nature's furies) while their hapless companions are wet, miserable, or freezing in conventional gear.

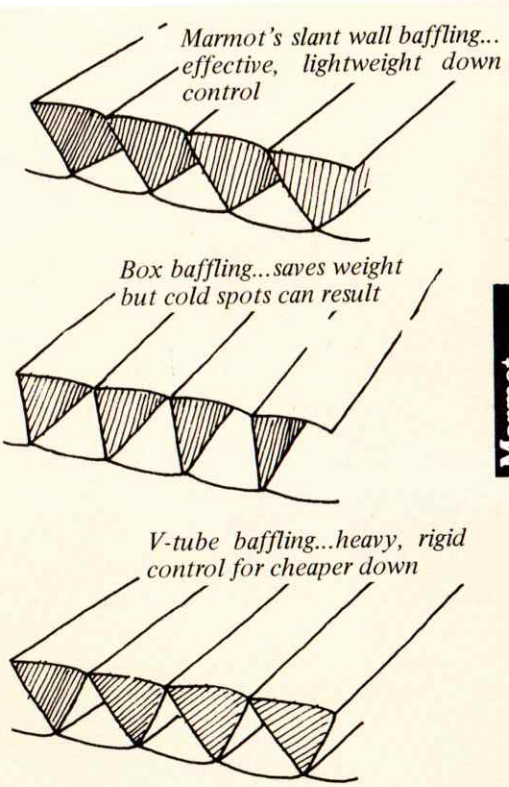
BAFFLING: DOWN CONTROL

To obtain maximum warmth to weight efficiency, we have chosen a slant wall baffling configuration. This is the lightest possible baffle technique which still maintains adequate down control. The parallelograms formed in slant wall construction provide insulation even when the down shifts to one end. The down in the adjacent compartment overlaps the empty section, preventing a cold spot.

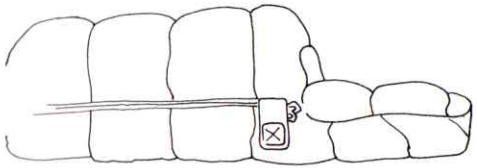
Box baffling saves even more material weight than slant wall, but makes a sacrifice in down control. If the down in the compartments shifts to one side, cold spots can result in the postion where no down remains.

V-tube baffling is common in bags using a cheaper grade of down which requires very tight down control to prevent cold spots. Overlapping V-tube construction doubles the amount of baffle material and hence adds considerable weight. Additionally, overlapping V-tubes create a rigid, unforgiving shape, whereas the parallelogram configuration of slant wall baffling is a flexible, more adaptable shape.

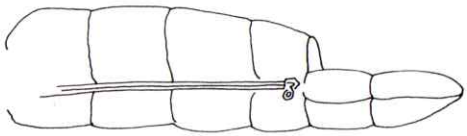
All of our sleeping bags have full length block baffles separating the top and bottom of the bag and the zipper draft tubes from the top and bottom halves. All compartments are totally sealed off from all others to prevent down migration. This is rarely done by other manufacturers.


Marmot's slant wall baffling... effective, lightweight down control
Box baffling...saves weight but cold spots can result
V-tube baffling...heavy, rigid control for cheaper down

Fanatic attention to detail assures a warmer sleep . .



Marmot bags maintain the differential cut all the way to the drawstring sleeves at the hood. This assures maximum insulation at your head, neck and shoulders.

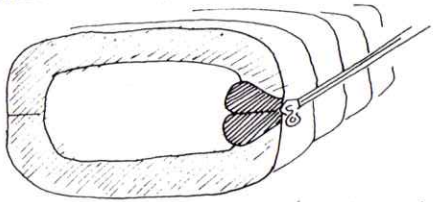


Notice how the loft on this bag tapers off in the critical shoulder area. The smaller hood doesn't provide much insulation for the neck and shoulders.

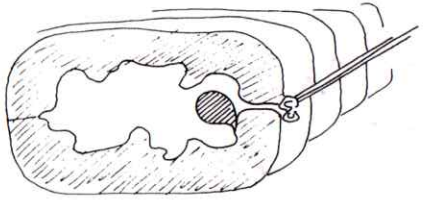
MARMOT FOOT SECTION:
A Solution to Cold Feet

The most common complaint of people who sleep outside is that their feet get cold. For this reason, we have made sure our foot section has more loft and tighter down control than the rest of the bag. No other manufacturer has a foot section constructed so well. It is tedious to sew, difficult to fill, but toasty warm. The "secret" is *seven* down-filled compartments to the usual four compartments.

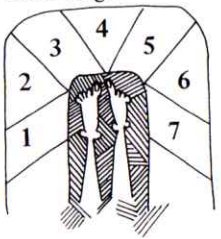
The foot section is also cut to allow a foot to *fit* inside it. The amount of loft at your feet can be "measured" easily by placing your hand, palm up, inside the foot and feeling all around the foot with your other hand. The loft of our bags in the foot is dramatically better than any other bags.

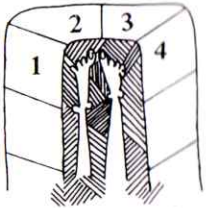


Marmot bags have a differential cut design which assures a comfortable fit and even loft. Also note Marmot's effective double draft tube.



The space filler cut, used in many other bags, allows the down to slop around and produces an interior which clings uncomfortably to your body. Note how ineffective a single draft tube can be.





The foot section on Marmot bags has seven down-filled compartments compared to the usual four in other bags. This insures more loft, tighter down control, and, therefore, warmer feet.

. your feet, head and shoulders stay warmer

DIFFERENTIAL CUT:
Assures a Comfortable Fit and Even Loft

Differential cut means that the inner shell is cut to a smaller circumference than the outer shell. We use a differential cut design for many reasons. First, to provide an even distribution of insulation; second, to assure that no cold spots occur in the event of protruding elbows or knees; and third, to assure a comfortable sleep.

The alternative method, the space filler cut, fails to accomplish any of these objectives. Having the inner and outer shells cut on the same pattern piece allows the down to slop around, permits the inner shell to easily come in contact with the outer layer, and produces an interior which clings uncomfortably to your body as you toss and turn.

The differential cut in our bags is greater than most, as it must allow for more lofting space. The full amount of differential cut is maintained throughout the hood and foot sections. This, in particular, is responsible for the exceptional loft in our hood and shoulder region when the top is drawn tight.

HOOD AND MARMOT MUFF:
Keeping Your Head & Shoulders Warm

Most heat loss takes place at your head, neck, and shoulder area. This region must be carefully insulated. Because we maintain the differential cut all the way to the drawstring sleeves at the hood, the full lofting potential is realized right up to that point. There is no tapering off of loft in this critical area.

The drawstring sleeves are very narrow (and difficult to sew) so that when the hood is drawn tight, the insulation fully encloses your head. We find this is also much more comfortable than having wide, sloppy sleeves digging into your face.

The Marmot Muff (optional feature on all bags except standard on Pika) is a down-filled collar that snugly fits around your neck and shoulders. It significantly reduces heat loss from wind or drafts caused by moving around. Many people have told us they feel it extends the bag's performance 10 to 15 degrees.

Tremendous loft in the hood region helps stop heat loss

The Marmot Muff keeps out wind and drafts

Coil zipper and double draft tubes seal out the cold

ZIPPER AND DOUBLE DRAFT TUBES

A 70" YKK coil two-way separating zipper is used for closure. Left and right zip bags may be zipped comfortably together.

The zipper closure on most bags is generally inadequately designed to provide thorough insulation against cold penetrating the zipper. One large draft tube may work if it flops down from the top half of the bag. But, oh, those poor bag owners with draft tubes that are supposed to flop up against gravity! These just don't work.

We use a double draft tube system -- one draft tube behind each half of the zipper. A strip of nylon sailcloth is sewn inside each tube to stiffen it. This serves two functions. First, it helps prevent the zipper from snagging the tube and second, it acts to position both tubes snugly against each other, sealing out the cold.

DOWN FILL PROPORTIONS

In order to assure long-term, consistent performance in all our bags we have computed the volume of each individual compartment for down filling. 60% of the fill in each bag is in the top half and 40% in the bottom half. The same density of fill is used for all bags.

INSPECTIONS

Each bag is thoroughly inspected *twice* -- once before it is filled to catch any "hidden" mistakes, and a second time after it is fully completed. This rigorous procedure reduces the chances of you getting a bag with any flaws.

HANG UP LOOPS

At the foot of the bag are two loops for hanging the bag in storage. It hangs easily from a couple of push pins or hooks at the top of a wall or in a closet. We recommend this as a healthy way to store your bag to aid in prolonging its life.

Sleeping bag selection guide

	Average Total Weight*	Weight of Fill	Loft	Temperature Rating**	Differential Cut	Inside Foot Girth	Inside Elbow Girth	Inside Shoulder Girth	To Fit
Pocket Gopher	2 lbs. 14 oz.	1 lb. 7 oz.	6½ - 7½"	10°	7"	36"	57"	53"	5'10", 6'4"
Gopher	3 lbs. 4 oz.	1 lb. 12 oz.	7½ - 8½"	-10°	10½"	36"	59"	57"	5'10", 6'4"
Penguin	3 lbs. 14 oz.	2 lbs. 5 oz.	9 - 10"	-20°	13"	36"	59"	57"	5'10", 6'4"
Pika	4 lbs. 14 oz.	2 lbs. 13 oz.	10½-11½"	-40°	16"	36"	59"	57"	5'10", 6'2", 6'6"

*Weights for longer length are approx. 2 to 3 oz. more.

**We hesitate to provide a hard figure for this performance criterion. No doubt you are aware of differences in individual physiology, fitness, environmental conditions, ground cover and the amount and quality of insulation; all are complex variables in determining sleeping comfort.

With many of these factors unknown, there is no way you can be guaranteed to be comfortable in a given situation. These figures are an honest, average reflection of many experiences related to us.

Optional features for Marmot sleeping bags

Reinforced Foot

The inside foot section of a bag can receive a lot of abuse, especially on winter trips. You can order your bag with a rugged 2.2 oz. nylon taffeta foot section so that you can toss water bottles, stove, boots, etc. inside your bag to keep them warm and functional.

$7.50

Marmot Muff

A Marmot Muff is a down-filled integral collar piece sewn into the bag with hidden seams. It must be ordered with the bag -- we can't put it in later. It forms snugly around your neck and shoulder region to reduce drafts coming into your cozy bag from wind or tossing and turning. It increases the temperature range of the bag significantly. We sell a lot of bags with this option. It is, however, a standard feature on the Pika.

From **$14.50.** Call 800-515-4224 for ordering details

The Pocket Gopher
For the Lightweight Fanatic

Weighing only 2 lbs. 14 oz., its 1 lb. 7 oz. of goose down produces a loft of 6½ - 7½". This bag pushes lightweight warmth to a rare dimension. It is a *narrow-cut* mummy bag designed for people who are most concerned with weight and bulk...hard core climbers, kayakers, bicyclists, and devoted backpackers.

Its 6" spaced tricot baffling, full length 70" #7 YKK coil zipper, backed by 2 draft tubes, and 7 individually sealed foot compartments make it a remarkably efficient and versatile bag.

Two Lengths:	To fit people up to 5'10" and up to 6'4"	
Standard Colors:	Navy Blue with Forest Green lining Royal Blue with Navy Blue lining	From
Gore-Tex Colors:	Navy Blue with Forest Green lining	**$221.00**

The Gopher
A Toasty Three-Season Bag

The Gopher is by far our most popular bag. Weighing 3 lbs. 4 oz., its fill of 1 lb. 12 oz. of goose down generates 7½ - 8½" of loft! This is ample insulation for 3-season use by virtually anyone. It's commonly used as a winter bag on short trips or on alpine climbing and skiing trips.

The inside dimensions are bigger than the Pocket Gopher, making it a bag roomy enough to fit comfortably, yet maintain a very high efficiency. It has 6" spaced tricot baffling, a 70" #7 YKK coil zipper backed with 2 draft tubes, and 7 individually sealed foot compartments. All in all, it's the most efficient and comfortable bag available in its class.

Two lengths:	To fit people up to 5'10" and up to 6'4"	
Standard Colors:	Navy Blue with Forest Green lining Royal Blue with Navy Blue lining	From
Gore-Tex Colors:	Navy Blue with Forest Green lining	**$249.00**

The Penguin
A Full-Scale Winter Bag

This bag provides too much warmth for most people to use in the summer season, but if you do much winter mountaineering this is the lightest bag you can take and be confident of comfortable sleep. It has been used successfully on many expeditions to Alaska and the Himalayas.

The Penguin weighs 3 lbs. 14 oz. with 2 lbs. 5 oz. of goose down fill. Its loft of 9 - 10" is comparable to most other full-scale expeditionary bags, but the weight is much less. Again, it has 6" spaced tricot baffling, a 70" #7 YKK coil zipper backed by 2 down-filled draft tubes, and 7 individually sealed foot compartments.

Two lengths:	To fit people up to 5'10" and up to 6'4"	
Standard Colors:	Navy Blue with Forest Green lining Royal Blue with Navy Blue lining	From
Gore-Tex Colors:	Navy Blue with Forest Green lining	**$305.00**

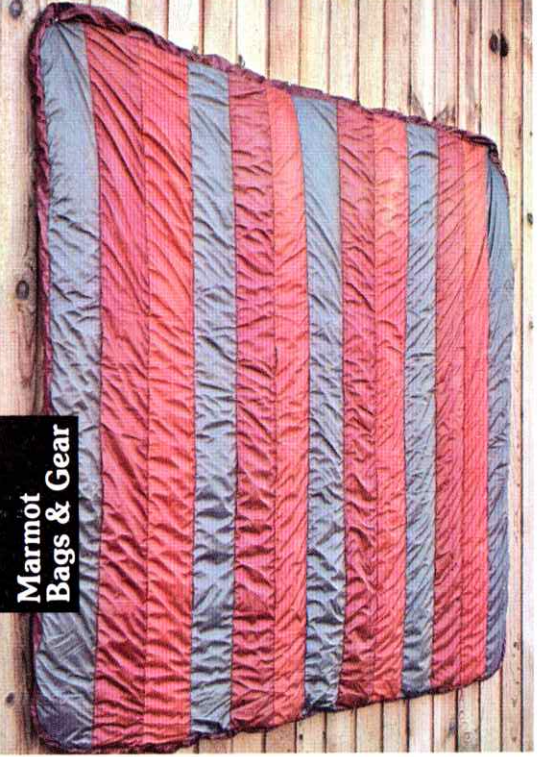
The Pika
An Extraordinary Expeditionary Bag

The inside dimensions are bigger than the Pocket Gopher, making it a bag roomy enough to fit comfortably, yet maintain a very high efficiency. It has 6" spaced tricot baffling, a 70" #7 YKK coil zipper backed with 2 draft tubes, and 7 individually sealed foot compartments. It's easily the most efficient and comfortable bag available in its class.

Three lengths:	To fit people up to 5'10", 6'2", and 6'6"	
Standard Colors:	Navy Blue with Forest Green lining Burgundy with Navy Blue lining	From
Gore-Tex Colors:	Navy Blue with Forest Green lining	**$378.00**

Stuff sack included with each bag. Pocket Gopher and Gopher, 9" x 19"; Penguin and Pika, 10" x 20".

Penguin
Pocket Gopher
Gopher
Penguin
Pika
Penguin with
Muff Option



Twin, **$117.00**
Double, **$169.00**
Queen, **$223.00**
King, **$237.00**

Marmot Comforter

Europeans have known for years the feeling of luxury and value of down comforters. Our comforters are unequaled in this country. They are aesthetically very pleasing, extremely warm, and superbly constructed. The top is a striped pattern of 6" bands of warm-toned colors. The fabric is a cotton/nylon/polyester blend. This fabric is not garish or gaudy; it gives off the low-key, mellow warmth of cotton in your bedroom.

The comforter is box-baffled with nylon tricot baffling to produce an even layer of 3" of insulation. This is far warmer and prettier than sewn-through quilted construction comforters. The bottom material is a thick, unwaled, rust-colored corduroy. This fabric has a rich, full texture to keep the comforter from slipping off the sheets.

You will find that the sleeping comfort of this product has some very tangible benefits in reducing your heating bills and fuel consumption. Most people find that they will save $10-$20 a month in the winter on utility bills by turning the thermostat down. Discover why most of the world's down is used by Europeans in comforters -- it is economical, ecologically sound, aesthetically pleasing, and wonderfully comfortable.

Sizes: Twin-42"x72" Double-60"x72" Queen-66"x78" King-78"x78"
Colors: Burnt Orange/Sable/Brick bands

E.B.'s Magic Boots

E.B.'s are an imported French rock-climbing shoe from the Etablissement Bourdonneau. They need little introduction. Their performance is far superior to any other rock-climbing shoes available. They are an extremely flexible, narrow-tipped boot with a very fine, soft rubber sole which really conforms to the irregularities in the rock.

We import E.B.'s directly from France, and to the best of our knowledge, *our price on these boots is the lowest in the country.*

$39.00

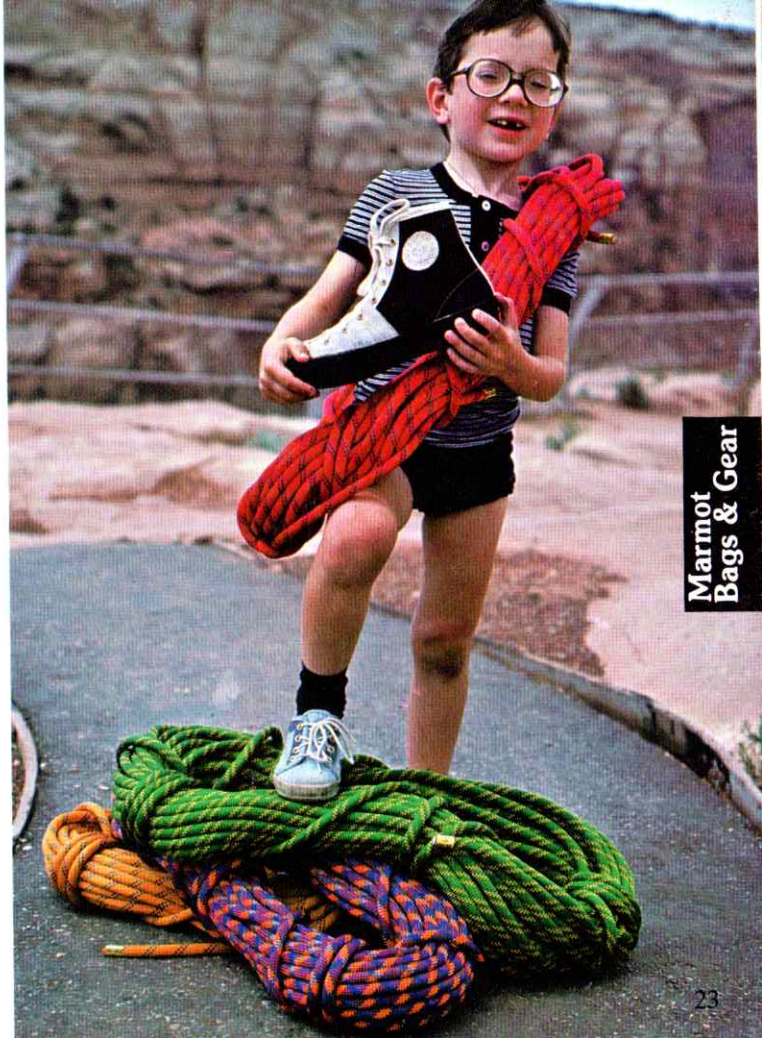
Edelrid Dynamic Ropes

11mm Dynamic, 150' & 165' Lengths

We carry Edelrid Dynamic Ropes because we believe they have the finest response and easiest handling of any on the market. We have been greatly disturbed by the sky-rocketing price of perlon ropes. Few of our climbing friends are able to afford new ropes. Thus, we offer Edelrid ropes at approximately 20% off the normal price.

11mm x 150, **$69.00**
11mm x 165, **$76.00**

Check these LOW prices!
Compare anywhere!



Gore-Tex®: at last, waterproof down gear that breathes

The development of a *waterproof and breathable barrier* has been a search that has often resembled the quest for the Holy Grail. A fabric laminated with Gore-Tex has the two seemingly contradictory properties of being both *waterproof and breathable.* The advent of Gore-Tex laminates creates a broad variety of new wilderness gear.

Down-filled equipment with an outer shell of Gore-Tex laminated fabric can now be *waterproof* and still maintain its *full normal* range of comfortable performance. You can now use down gear in wet weather, leaky tents and dripping snow caves without fear of ending up with a useless sponge. In winter camping and sub-freezing weather, Gore-Tex laminated down gear outperforms either Polarguard or traditional down gear. It does not gain as much water weight or lose as much loft. Furthermore, it does not suffer from the bulk or short life of synthetics.

The functions of rainwear and wind gear can be combined into one light and versatile garment. No longer must you suffer in a rain parka alternately hot and sweaty or cold and clammy. You no longer have to carry the weight and bulk of both rain and wind gear.

Extremely lightweight and effective bivouac gear is also made possible. A Gore-Tex bivouac sack/sleeping bag cover will add tremendous security to a bivy or extend your bag's secure performance in wet weather with a small sacrifice in weight.

On the whole, we feel Gore-Tex laminates are the most significant advance in wilderness equipment to date. They won't make you a better climber, kayaker or backpacker, but they do allow you to push your limits, while giving greater security. Gore-Tex laminates allow us to make gear that is so weight-efficient and versatile, you can cut *ten pounds* from your pack. That saving will give you greater freedom to enjoy your wilderness outings.

GORE-TEX LAMINATES: WHAT ARE THEY? HOW DO THEY WORK?

In brief, Gore-Tex is a thin film of a highly porous plastic material which is bonded to fabrics. Because of its sophisticated physical and chemical properties it is waterproof, yet still allows vapor transmission (breathability).

It is as waterproof as urethane-coated rainwear fabrics, yet breathes as well as 60/40 cloth, ventile cloth (100% cotton) and many other recreational fabrics. Its vapor transmission rate is not affected by extreme cold any more so than common nylons, yet it is fully waterproof. It is durable and light, it works as we claim, and we guarantee it!

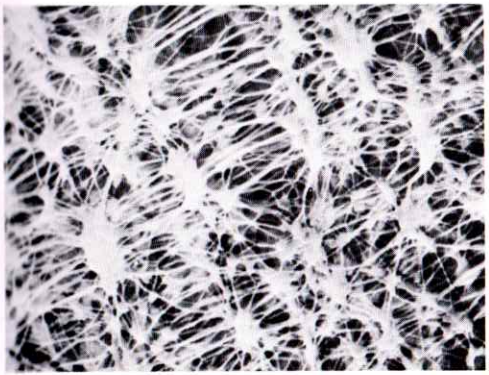
GORE-TEX: ITS PHYSICAL AND CHEMICAL PROPERTIES

Gore-Tex is a microporous, polymeric film of polytetrafluoroethylene (PTFE), the same material from which Teflon® is made. It is one of the most stable inert substances known to man. When this plastic resin is pulled rapidly, billions of tiny pores open up.

The film is remarkably strong. The porosity can be tightly controlled. For fabric lamination purposes the film is 80%(!) pore space. That is *nine billion* pores per square inch! Each individual pore has a maximum diameter of eight millionths of an inch.

The PTFE material is a polymerized fluorocarbon. Its molecular structure is shown schematically on the facing page:

The outer layer of fluorine atoms is surrounded by a highly stable, negatively charged electron cloud. The importance of this will become apparent below.



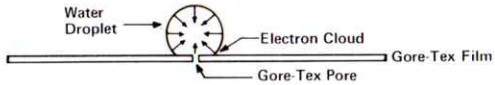
A close-up of Gore-Tex film... 9 billion pores per square inch!

LIQUID WATER

An individual water molecule is more than 700 times smaller than a Gore-Tex pore. All molecules are in constant motion. Whether the molecules of any material will be gas, liquid, or solid form, is dependent upon temperature and pressure.

When in liquid form individual water molecules do not behave as distinct, individual particles. Rather, they are held together by the strength of hydrogen bonds. The strength of the hydrogen bonds determines the size of the water droplet. The bonds at the center of a droplet are more balanced than those at the surface, and the molecules at the center possess less energy than those at the surface. The tendency is to achieve a lower state of energy, thus a droplet forms as a sphere, as it has the smallest surface area per unit volume. A water droplet is then held together with a powerful internal tension.

The outer skin of a water droplet is surrounded by a negatively charged electron cloud. This cloud is electrically repellant to a similar cloud present at the surface of the Gore-Tex film (PTFE). This phenomenon, in addition to the tremendous size of a water droplet in comparison to a Gore-Tex pore, requires very high water pressures to force liquid water through a Gore-Tex film.



WATER VAPOR, CONDENSATION, AND DIFFUSION: WHY GORE-TEX BREATHES

Common air is basically a uniform mixture of 79% nitrogen and 20% oxygen. However, dependent upon environmental conditions, air may contain one to five percent water vapor by volume. The amount of water vapor that can be held by air is primarily determined by temperature. The higher the temperature, the more water vapor the air may contain. When the saturation point is reached, condensation of liquid water occurs.

Condensation may form as droplets on dust particles or as frost or dew on large surfaces. Condensation commonly forms as unsaturated air cools (early morning frost or dew), by coming into contact with a cold object or a cold air mass. Air always tends to become as saturated as possible. Therefore, when saturated air comes into contact with liquid water, the water will evaporate to increase the amount of vapor in the air. Equilibrium is reached when the rate of evaporation equals the rate of condensation.

All gases, including water vapor, have a strong tendency to attain a uniform mixture in their distribution. Gases will *diffuse* through a gas-permeable barrier such as Gore-Tex or a cell membrane, from a region of higher concentration to a region of lower concentration, to achieve an even concentration on both sides of the membrane.

THE TEST RESULTS

In the preceding paragraphs we have tried to explain as simply as possible some of the

basic principles necessary to understand and appreciate the wonders of Gore-Tex. It is a gas-permeable membrane that is waterproof... much like living tissue membranes.

In the following table we show the comparative performance of several fabrics commonly used in wilderness equipment. Three factors were tested: waterproofness, moisture vapor transmission rate (breathability), and air permeability. It is very important to realize that *breathability* and *air permeability* are two different things. You can't blow through Gore-Tex, yet it will very effectively allow *diffusion* of water vapor.

No fabric, except Gore-Tex laminates, combines high waterproof values with breathability rates sufficient to maintain comfort.

INSULATION, CONVECTIVE HEAT LOSS, & FABRIC AIR POROSITY

The layer of insulation provided by down, synthetics or wool will keep you warm by providing a *dead air space.* This insulation does not provide warmth -- it gives a dead air space barrier to slow the convective heat loss away from your body to the outside cold. Convective heat loss is the primary means of losing heat. (Other less important means are conductive and radiant heat loss.)

It is important to maintain as *dead* an air space as possible. Wind penetrating a layer of insulation accelerates convective heat loss by causing turbulence in the air space. It is very desirable to use fabrics with as low an air porosity as possible to reduce this effect. Gore-Tex laminates have the lowest air permeability of any breathable fabric.

This is the reason for another dimension of Gore-Tex's incredible performance. In the field, when sleeping out in the wind with no tent or when wearing a down garment, you will be warmer in a piece of Gore-Tex gear

MATERIAL	**WATER PROOFNESS** *Water Entry Pressure (pounds per sq. inch)*	**BREATHABILITY** *Moisture Vapor Transmission Rate (grams/sq. meter/24 hrs.)*	**WIND PROOFNESS** *Air Permeability (cu. ft./min./sq. ft. at .5 lbs. H_2O)*
Gore-Tex/1.5 nylon	55	4800	.11
60/40 cloth	0.5	5200	3.75
K-Kote treated nylon (rainwear fabric)	40	500	less than .10
Ventile (100% cotton)	2	4900	1.25
1.5 oz. nylon	1 - 2	5800	2.00
Gore-Tex Film	65	11,000	.33

than in the same gear without the Gore-Tex lamination. This is a very significant benefit, particularly if you wish to use a minimum of versatile, lightweight gear.

OTHER USES OF GORE-TEX

Gore-Tex films were originally developed for use as artificial arteries and veins, and for membranes in blood oxygenator units for open heart surgery. Blood cells, bacteria, and liquids cannot penetrate the membrane, yet gases and molecular nutrients are allowed to diffuse back and forth across the membrane as concentrations dictate. The same principles concerning diffusion and pore size make Gore-Tex work in wilderness equipment as in these situations.

THE LAMINATION PROCESS AND DURABILITY

Both the Gore-Tex film and the fabric to which it is laminated are breathable. To simply slap the two together with a layer of glue between them would be useless...a layer of glue won't breathe! Sophisticated technology is used to laminate Gore-Tex. A microscopic, geometric pattern of adhesive dots is imprinted on the fabric. This pattern of 3,000 dots per square inch covers a minimum of surface area and has a negligible effect upon the breathability.

Many different adhesives have been tested to finally find a durable, long-lasting bond. The lamination has an insignificant effect on the tear strength of the fabric and no effect on its abrasion resistance. The bond is strong -- it stands up to great physical abuse, ice formation, and proper washing.

Gore-Tex laminates are creating a new dimension in wilderness gear...waterproof down!

GUARANTEE

We are confident of the long-term, superior performance of Gore-Tex products. Any unforeseen failures of the material or lamination will be promptly repaired, replaced, or refunded. Don't worry -- we will not take advantage of you or disappoint you.

GORE-TEX DOWN GEAR

Gore-Tex makes it possible to use down gear in wet weather without fear. A down garment can now be used in cold rain, wet snow, sloppy bivouacs, or leaky tents. Our Gore-Tex down bags are so effective in wet situations, we have even heard of a few people sleeping directly out in the rain with no tent. This is a bit extreme, but it gives you an idea of what is possible. We even go so far as to dip all sleeping bag zippers in a silicone solution to waterproof the zipper tape.

Under more "normal" extreme conditions than direct rain, you will find yourself comfortable in a leaky tent or in a dripping snow cave. On a river trip, you can treat your down gear more casually than you otherwise would.

Gore-Tex down gear functions exactly the same as normal down gear in all respects except for its reaction to liquid water. Vapors diffuse through the Gore-Tex layer as readily as in normal gear. Down gear that gets damp from vapors accumulated over a long period dries just as rapidly as normal. There is no

change in the frosting action at sub-freezing conditions. This is probably the most misunderstood situation in Gore-Tex use.

In sub-freezing temperatures, sleeping in a bag of any type -- be it synthetic or down fill, normal fabrics or Gore-Tex laminated fabric -- the diffusion and condensation of water vapors are the same. Your body at rest is a heat source giving off water vapors at a rate of 350 to 600 grams per square meter per 24 hours. This generates a driving force to diffuse the vapors away from you to the outside environment where there is a lower concentration of water vapor.

As warm, moist air travels through the insulation (down or synthetic), some of the water vapors are absorbed. Early in the night, most of the vapor passes through the fabric and away. As the night progresses and it gets colder, the vapors will start to condense as frost on the outside of the fabric. Later on and colder still, the cooling extends into the outer fringes of the insulation. At this point, condensation begins to occur inside the bag. Generally, this condensation will not penetrate the insulation more than an inch or so. Remember, all this happens in a bag whether it is down or synthetic, Gore-Tex or not.

No more and no less condensation occurs with Gore-Tex. No more vapors are absorbed by the insulation than in normal sleeping bags. The tremendous benefit of Gore-Tex in winter camping is that all the moisture that condenses as a heavy frost outside the bag and all the condensation inside the tent will *not* contribute to wetting the down nor add weight and bulk to your bag. This is a significant improvement. We have received much praise and not a single complaint about our Gore-Tex gear's performance in winter conditions.

Our Gore-Tex down garments have pocket flaps to keep water from filling up the pockets. A hood zip allows the option of attaching a Gore-Tex hood for added protection in sleet or in a wet, windy snow.

SEAM SEALING

All of our Gore-Tex products come with an applicator tube of seam sealant to waterproof all seams and exposed stitching. This usually takes just a couple of hours -- most of it drying time. It would be far too expensive for us to do it in our factory. We're sure most all of you would prefer to do it yourselves rather than pay a far higher price for your gear.

"No fabric, except Gore-Tex laminates, combines high waterproof values with breathability rates sufficient to maintain comfort."

Coming soon:

Mini-Mantle

THE ULTIMATE ALPINIST'S PARKA

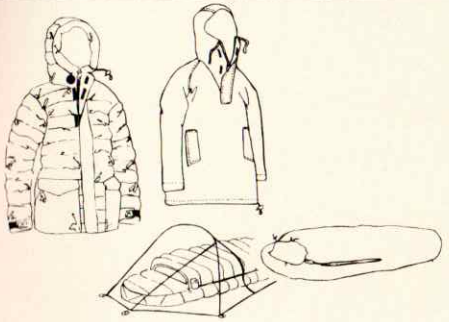
The Mini-Mantle is intended to fill the so-far unmet need for a superb, ultra-light alpine parka. This new parka is constructed in the same fully-baffled manner as a Golden Mantle, but with great attention to saving bulk and weight. It weighs an incredibly light 30 ounces.

Its freedom of movement is unrivaled in a climbing parka. A permanently attached hood rolls up out of the way to form a high, thick collar. All the pockets are Velcro-sealed, but cleverly designed to open easily with mitts on. A down-filled draft tube behind the zipper and a Velcro-sealed storm flap over it insure a warm, secure closure.

Gore-Tex® Mountain Parka

Again the wonders of Gore-Tex allow us to combine the functions of two pieces of traditional gear. Rather than carry a 2 lb. 60/40 style parka for wind protection and a rain shell at 1 lb. that is terribly uncomfortable during exertion, you can now buy one garment and cut the weight and bulk in half!

two new parkas, rainy day gear



If you need Gore-Tex shell garments now, write to Synergy Works, 255 4th St., Oakland, California 94607. Synergy makes excellent products.

In fact, it functions better in all its uses.

Our Gore-Tex Mountain Parka has the same fine fit and movement of our Gore-Tex Anorak, but with the more traditional styling of a many-pocketed wind garment. Again, we use a three-layer laminate that is very tough. Many of the pocket seams are cleverly hidden to reduce the number of potentially leaky seams. A hidden storm cuff at the wrist may be secured to prevent water coming down (or up) your arm when climbing. A storm closure covers the full length zipper.

Gore-Tex® Anorak

At last rainwear and foul weather gear that doesn't create a steam bath! A 3-layer lamination of Nylon/Gore-Tex/Nylon Tricot provides a waterproof shell garment that allows the diffusion of water vapor away from your body. Gone are the days of swimming in perspiration.

This garment is cut to give exceptional freedom of movement, even over a down garment or bulky sweater, without compressing your insulation. Its rugged construction, using a slightly heavier weight and more abrasion-resistant nylon than normally used in rainwear, is ideal for rough use on alpine climbs, rock climbing or skiing through the trees.

The Anorak is a pullover-type garment, with a zipper that opens to mid-chest. Two slit pocket openings are Velcro- sealed. The large kangaroo style pocket is concealed inside the front without any outside seams which might leak.

Velcro closure at the wrists, a free-moving hood, and a drawstring at the hem assure that you will stay dry in extremely wet weather.

Gore-Tex® Sleeping Bag Cover/Bivy Sack

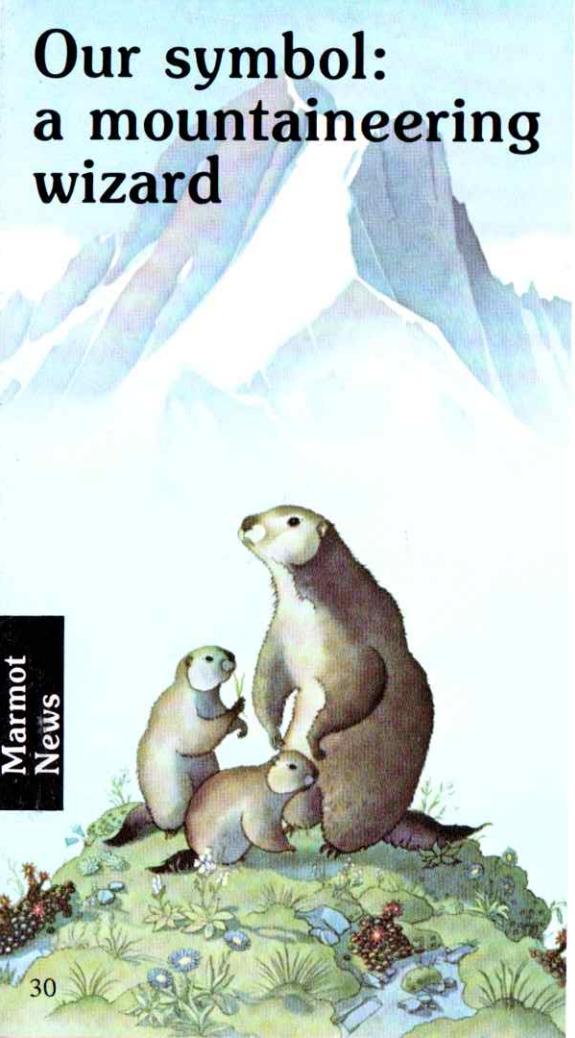
We anticipate this piece of gear to be extremely popular and useful to many of you. If you do not mind a bit of extra weight or if you don't want to buy our Gore-Tex sleeping bags, this sleeping bag cover can effectively extend the performance of your present gear. Or, as a bivouac sack, with a minimum of weight, it will provide security in the worst of storms. It is cut to conform to the shape of a sleeping bag. The bottom material is a thickly coated nylon and the top is a three-layer Gore-Tex laminate.

Gore-Tex® Bivouac Tent

This "tent" expands lightweight gear to a new dimension. We anticipate its total weight to come under 1½ lbs! It will provide secure and comfortable quarters for one person with the minimum of weight and bulk. It will be useful in backpacking as well as the obvious situations where tent pitching space is usually scarce.

Heavily coated nylon fabric is used for the floor and a three-layer Gore-Tex laminate for the top. Over the head and shoulders is a low profile tent formed by a collapsible fiberglass pole.

Our symbol: a mountaineering wizard



Most all of us who have ever scrambled in the high reaches of the mountains must have felt some envy for the life of a marmot. Few creatures are blessed with a habitat as sublime and powerful as the alpine ranges of the northern hemisphere. John Muir has perhaps best of all captured the spirit of this wondrous creature.

The Marmot..."dwells on high bleak ridges and boulder piles; and a very different sort of mountaineer is he -- bulky, fat, aldermanic, and fairly bloated at times by hearty indulgence in the lush pastures of his airy home. In the midst of what we regard as storm-beaten desolation, high in the frosty air, beside the glaciers he pipes and whistles right cheerily and lives to a good old age.

"If you are as early a riser as he is, you may oftentimes see him come blinking out of his burrow to meet the first beams of the morning and take a sunbath on some favorite flat-topped boulder. Afterward, well warmed, he goes to breakfast in one of his garden hollows... then goes avisiting, and plays and loves and fights...

"In the spring...one morning, passing around a frozen lake where the snow was perhaps ten feet deep, I was surprised to find the fresh track of a marmot plainly marked, the sun having softened the surface. What could the animal be thinking of, coming out so early while all the ground was snow-buried?

"The steady trend of his track showed he had a definite aim, and fortunately it was toward a mountain thirteen thousand feet high that I meant to climb. So I followed to see if I could find out what he was up to.

"From the base of the mountain the track pointed straight up, and I knew by the melting snow that I was not far behind him. I lost the track on a crumbling ridge, partly projecting through the snow, but soon discovered it again.

"Well toward the summit of the mountain, in an open spot on the south side, nearly enclosed by disintegrating pinnacles among which the sun heat reverberated, making an isolated patch of warm climate, I found a nice garden, full of rock cress...and a few grasses; and in this garden I overtook the wanderer, enjoying a fine fresh meal, perhaps the first of the season.

"How did he know the way to this one garden spot, so high and far off, and what told him that it was in bloom while yet the snow was ten feet deep over his den? For this it would seem he would need more botanical, topographical, and climatological knowledge than most mountaineers are possessed of."

John Muir. 1901. Our National Parks. Houghton Mifflin Co., Boston.

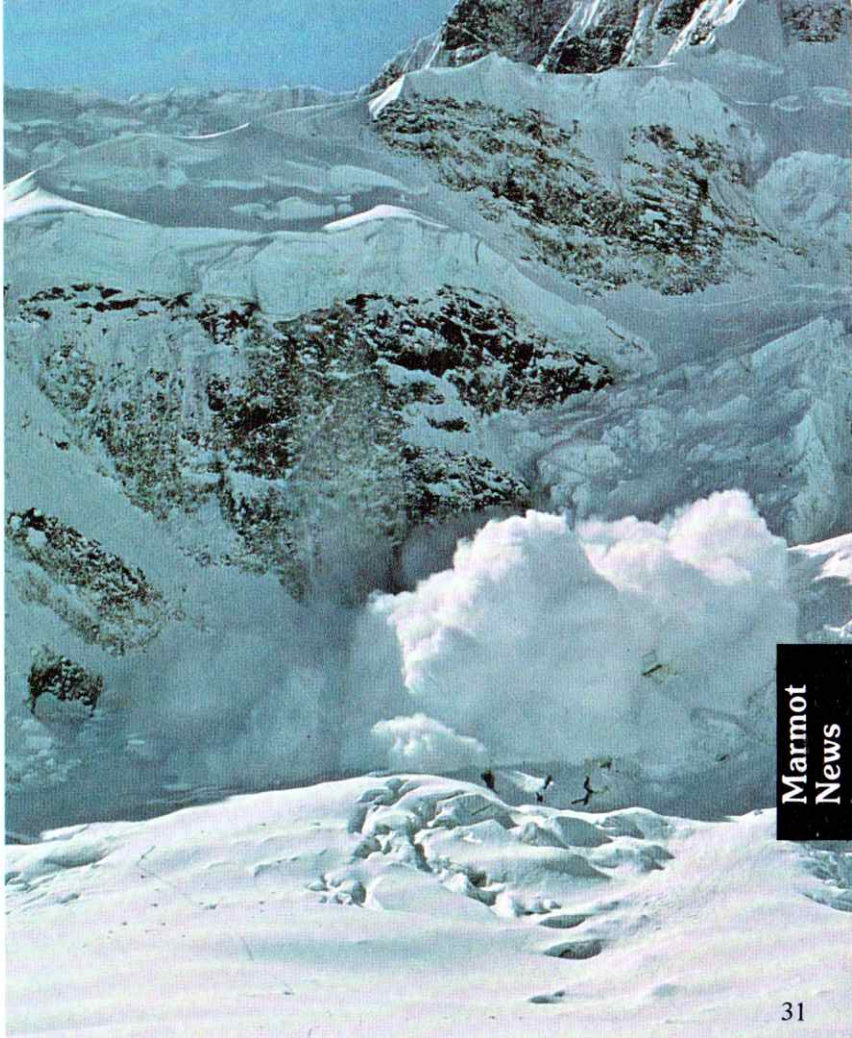
We believe. . .

We at Marmot try to make your trip into the wilderness more enjoyable by making products to increase your comfort and extend the limits of what you can do. We are dedicated to the quality of the wilderness experience. It should, however, be obvious today that we are all in serious danger of losing what tiny remnants of wilderness are left.

You, as a backpacker, climber, kayaker, skier or whatever are responsible for many wilderness areas being "loved to death". We, as manufacturers, are responsible for making it easier for more people to go out into the wilderness and abuse it. All of us on earth must share some responsibility for the treatment our fragile environment is receiving. Everyone must help if we are to preserve pristine wilderness and reverse the dangerous trends of our highly industrialized society.

For our part, we pledge 5% of our mail order income to the environmental concern group of your (the purchaser's) choice. We hope that we will be able to raise many thousands of dollars which will be used to protect the wilderness. We dream that we may be able to show other manufacturers how a company can be ethical and responsible while being profitable.

Can you find the two climbers in this picture?



V. How to Order

We want you to receive your Marmot equipment as soon as possible. To assure the fastest delivery service, please type or print in dark ink all necessary information on the Order Form and be sure to indicate a first, second and third color choice. Use a separate sheet of paper for any correspondence.

PAYMENT

We accept personal checks, certified checks, money orders, Master Charge and BankAmericard. Personal checks take two to three weeks to clear your bank, so the other forms of remittance will result in faster service.

SHIPPING

Please enclose a $2 shipping charge for garments and E.B.'s, $3 for sleeping bags and ropes. Unless you specify otherwise, your order will be shipped via United Parcel Service. UPS cannot deliver to Alaska, Hawaii or Post Office Box addresses. In these situations we will ship via surface mail. For extra fast delivery, add $3 for bus delivery to any point in the United States.

NOTHING TO LOSE

If your Marmot product does not meet your expectations, please return it unused within one month and you'll get your money back.

CUSTOM COLORS AND SIZES

Custom color combinations are available for all gear for a small charge.

We will custom make sleeping bags to 6'10".

The materials and design features mentioned in this catalog may change without notice as we discover or develop new improvements.

GARMENT WEIGHTS

All total weights given for garments are average weights for medium size. Amount of down fill is also for medium size.

NOTE

If you are ordering a sleeping bag to pair with a Marmot bag made before the spring of 1976, please specify a No. 10 zipper. We changed from a No. 10 (10mm wide tooth) to a No. 7 (7mm wide tooth) zipper to save 2.25 oz. of weight at no sacrifice to durability.

Call toll-free for fast delivery
[800] 525-4224

You can now dial us toll-free to order from the catalog or for additional product information.

Dial (800) 525-4224 on weekdays from 9 to 5, Mountain Standard Time.

We suggest that you fill out your order form before you call to use as a reference.

The easiest way to make phone payments is to use your Master Charge or BankAmericard. Please have the bank card information ready before you place your call.

You can also buy Marmot products at these fine stores:

MARMOT MOUNTAIN WORKS, LTD.
546 Main Street
Grand Junction, Colorado 81501
(303) 243-2339

MARMOT MOUNTAIN WORKS, LTD.
3049 Adeline Street
Berkeley, California 94703
(415) 849-0735

Robbins' Mountain Shop
1508 10th Street
Modesto, California 95354
(209) 529-6917

Robbins' Mountain Shop
7257 North Abbey
Pinedale, California 93650
(209) 439-0745

Aspen Mountaineering
203 South Galena Street
Aspen, Colorado 81611
(303) 925-1166

The Boulder Mountaineer
1329 Broadway
Boulder, Colorado 80302
(303) 442-8355

Mountain Chalet
226 North Tejon
Colorado Springs, Colorado 80902
(303) 633-0732

Forrest Mountaineering, Ltd.
1517 Platte Street
Denver, Colorado 80202
(303) 477-1722

Hudson Bay Outfitters, Ltd.
315 E. Diamond Avenue
Gaithersburg, Maryland 20760
(301) 948-2474

Hudson Bay Outfitters, Ltd.
10560 Metropolitan Avenue
Kensington, Maryland 20795

Mountaineer Sports
207 South 13th East
Salt Lake City, Utah 84102

Mountaineer Sports
Trolley Square
Salt Lake City, Utah 84102
(801) 582-2338

Early Winters, Ltd.
300 Queen Anne North
Seattle, Washington 98109
(206) 284-4979

Marmot products backed by full warranty

This full warranty is extended to anyone purchasing a Marmot manufactured product. **The warranty covers all defects and flaws in materials or workmanship which become apparent at any time,** normal wear and tear excepted.

In the event that a product covered under the warranty is returned, it shall be repaired promptly at no cost to the owner of the product, and all freight charges to and from Marmot Mountain Works, Ltd. shall be paid by Marmot.

If Marmot Mountain Works believes, after inspection, that the product is free from flaws or defects, then the owner will be asked for further instructions prior to any repair work being done. Please ship all returned items to Marmot Mountain Works, Ltd., P.O. Box 2433, Grand Junction, Colo. 81501. If the product cannot be repaired to function adequately then the owner is entitled to a full refund or a free replacement. The owner has legal remedies available by 15 U.S.C. 2301 et seq.

Upon receipt of a newly purchased product, the customer, after inspection and comparison, can elect to return the product within one month of the date of purchase in new and unused condition for a full and prompt refund. This warranty is provided by and shall be honored at Marmot Mountain Works, Ltd., P.O. Box 2433, Grand Junction, Colorado 81501. (303) 245-3178.

Marmot Mountain Works, Ltd.
P. O. Box 2433-MO
Grand Junction, Colorado 81501

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